

IN THE CLAIMS:

1. (Original) A hydrogel adhesive comprising 10-60 wt% of a cross-linked hydrophilic polymer, 5-80% of a water-soluble non-ionic humectant, and from about 10-85 wt% water, wherein the hydrophilic polymer is prepared by polymerizing a mixture which comprises at least 80 mole% of one or more weak-acid monomer units having a pKa above 3, the weak-acid monomer being more than 60 mole% in its salt form, the level of monomer in acid form in said hydrophilic polymer not exceeding 50 mole% of all monomer units and the hydrogel adhesive having a peel strength on PET of 0.3 to 5.0 N/cm and a stability index measured after 14 days SI_{x14} below 0.50.

2. (Currently amended) A The hydrogel adhesive ~~according to~~ of claim 1 with having a stability index measured after 14 days SI_{x14} below 0.10.

3. (Currently amended) A The hydrogel adhesive ~~according to one of the claims~~ claim 1-2 wherein the hydrogel adhesive ~~does not contain any~~ is free of an alkanolamine.

4. (Currently amended) A The hydrogel adhesive ~~according to one of the claims~~ claim 1-3, wherein the weak-acid monomer is selected from the group consisting of acrylic acid and methacrylic acid, ~~preferably acrylic acid.~~

5. (Currently amended) A The hydrogel adhesive ~~according to one of the claims~~ claim 1-4, wherein the ~~weak acid~~ weak-acid monomer is present from 60 mole% to 80 mole%, in its salt form.

6. (Currently amended) A The hydrogel adhesive ~~according to one of the claims~~ claim 1-5, wherein said water-soluble nonionic humectant ~~is selected from~~ comprises a polyhydric alcohols, ~~and is preferably~~ glycerol alcohol.

7. (Currently amended) A The hydrogel adhesive ~~according to one of the claims~~ claim 1-6, wherein the hydrophilic polymer comprises at least 90 mole% ~~weak acid~~ weak-acid monomer units.

8. (Currently amended) A The hydrogel ~~body~~ adhesive ~~according to one of the claims~~ claim 1-7 with having a pH value of 4.0 to 8.0.

9. A The hydrogel adhesive ~~according to one of the claims~~ claim 1-8, wherein the water-soluble nonionic humectant is glycerol, and the weak acid is acrylic acid.

10. (Currently amended) A The hydrogel adhesive ~~according to one of the claims~~ claim 1-9, wherein the counterion for the acrylic acid unit in salt form is a mono, di, or tri-valent metal ion or a combi- nation thereof.

11. (Currently amended) A hydrogel adhesive ~~with~~ having a stability index measured after 14 days SI_{14} below 0.10.

12. (Currently amended) A hydrogel adhesive ~~with~~ having a stability index measured after 14 days SI_{x14} below 0.10.

13. (Currently amended) A ~~The~~ hydrogel adhesive ~~according to one of the claims~~ claim 11-12, wherein the hydrogel adhesive has a peel strength on PET of 0.3 to 3.0 N/cm.

14. (Currently amended) A ~~The~~ hydrogel adhesive ~~according to one of the claims~~ claim 1-13 ~~with~~ having a G'_{25} (1 rad/sec) in the range 100 to 20000 Pa.

15. (Currently amended) A ~~The~~ hydrogel adhesive ~~according to one of the claims~~ claim 1-14 ~~where~~ wherein the residual monomer(s) concentration in the hydrogel adhesive is below 10000 ppm.

16. (Currently amended) A ~~The~~ hydrogel adhesive ~~according to one of the claims~~ claim 1-15 ~~which~~ containing less than 100 ppb, of an α, β -unsaturated carbonyl by-product(s) derived from said polyol(s) during polymerization, and wherein the level of residual starting monomer(s) is below 200 ppm.

17. (Currently amended) A- The hydrogel adhesive ~~according to one of the claims~~ claim 1-16 wherein the low levels of residual monomers, impurities ~~and/or byproducts~~ and by-products is achieved by ~~treating (PRE-treatment and/or POST-treatment)~~ pre-treating or posttreating with a compound that is capable of reacting with said residual monomers, impurities ~~and/or~~ and byproducts.

18. (Currently amended) A- The hydrogel adhesive ~~according to~~ of claim 17, wherein the compound capable of reacting with the residual monomers, impurities, ~~and/or byproducts~~ and by-products is a nucleophile.

19. (Currently amended) A- The hydrogel adhesive ~~according to~~ of claim 17, wherein the compound is sodium bisulfite.

20. (Cancelled)

21. (New) The hydrogel adhesive of claim 1 wherein the weak-acid monomer comprises acrylic acid.

22. (New) The hydrogel adhesive of claim 1 wherein water-soluble nonionic humectant comprises glycerol.

23. (New) The hydrogel adhesive of claim 12 wherein the hydrogel adhesive has a peel strength on PET of 0.3 to 3.0 N/cm.

24. (New) A method of attaching a functional article to mammalian skin comprising applying a hydrogel adhesive of claim 1 to a surface of the functional article, and contacting mammalian skin to the surface of the functional article having the hydrogel adhesive applied thereto.